

REMARKS

Claims 4-6, 13-17, 30-31, and 33-43 are pending in the application.

Claims 30, 31, 33, 38, and 41-13 have been rejected.

Claims 4-6, 13-17, 34-37, and 39

Claims 6, 33-35 and 38-39 have been amended as set forth herein.

Claims 4-6, 13-17, 30-31, and 33-43 remain pending in this application.

Reconsideration of the claims is respectfully requested. The Applicants make the aforementioned amendments and subsequent arguments to place this application in condition for allowance. Alternatively, the Applicants make these amendments and offer these arguments to properly frame the issues for appeal. In this Response, the Applicants make no admission concerning any now moot rejection or objection, and affirmatively deny any position, statement or averment of the Examiner that was not specifically addressed herein.

I. CLAIM REJECTIONS -- 35 U.S.C. § 112

Claims 33 and 38 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter. The Applicants have amended Claims 33 and 38 as shown above.

Accordingly, the Applicants respectfully request that the § 112 rejection with respect to Claims 33 and 38 be withdrawn.

II. ALLOWABLE SUBJECT MATTER

The Examiner objected to Claims 4-6, 13-17, and 34-37, 39 as being dependent upon a rejected base claim, but suggested that Claims 4-6, 13-17, and 34-37, 39 would be allowable if it were rewritten in independent form including all the limitations of the base and intervening claims. Applicants thank the Examiner for this suggestion but elect not to rewrite Claims 4-6, 13-17, and 34-37, 39 at this time.

III. CLAIM REJECTIONS -- 35 U.S.C. § 103

Claim 33 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,424,121 to *Kubota* (hereinafter “Kubota”) and U.S. Patent No. 6,285,766 to *Kumamoto* (hereinafter “Kumamoto”) and U.S. Patent No. 6,307,941 to *Tanner, Jr., et al.*, (hereinafter “Tanner”). The Applicants respectfully traverse the rejection.

Claim 38 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kubota and U.S. Patent No. 7,113,609 to *Neidich, et al.*, (hereinafter “Neidich”) and U.S. Patent No. 7,242,782 to *Kasai, Jr., et al.*, (hereinafter “Kasai”) and Kumamoto and Tanner. The Applicants respectfully traverse the rejection.

Claims 40-41 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kumamoto and Tanner. The Applicants respectfully traverse the rejection.

Claims 30, 31, and 42 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kumamoto, Tanner, and Kasai. The Applicants respectfully traverse the rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicants to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicants are entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

Independent Claim 33 recites an audio processor that includes:

- a virtualizer configured to process audio information to virtualize at least one speaker such that, from a listener's perspective, sounds appear to come from at least one direction where a physical speaker is not present, the virtualizer comprising:

- a first feedback crossover path configured to receive, delay, and filter signals output from the virtualizer; and

- a forward crossover path configured to receive, delay, and filter an output of a first filter, wherein an output of the first feedback path and an output of the forward crossover path are combined to produce at least one output signal from the virtualizer; and

- a controller configured to cause the virtualizer to virtualize the at least one speaker at any location in a space around the listener.

The Office Action contends that *Kubota*, *Kumamoto* and *Tanner* render obvious these features of Claim 1. The Office Action concedes that *Kubota* fails to teach a first feedback crossover path configured to receive, delay, and filter signals output from the virtualizer; and a forward crossover path configured to receive, delay, and filter an output of a first filter. (*Office Action*, pages 7 and 8). The Office Action contends that the combination of *Kumamoto* and *Tanner* provide this necessary disclosure. The Office Action concludes that it would have been obvious to use the *Kubota-Kumamoto-Tanner* combination to provide a first feedback crossover path configured to receive, delay, and filter signals output from the virtualizer and a forward crossover path configured to receive, delay, and filter an output of a first filter. (*Office Action*, Page 8).

Kumamoto teaches a cross-talk cancelling means that includes crosstalk path filters (108a and 108b) and crosstalk canceling signal generating filters (106a and 106b). (*Kumamoto*, col. 8, lines 52-60). The crosstalk canceling signal generating filters (106a and 106b) are configured as feedback paths. (*Kumamoto*, col. 8, lines 61-67). The crosstalk canceling signal generating filters (106a and 106b) multiply the input signals by a calculated coefficient to generate a cross talk cancelling signal and outputs it to the adder (103). (*Kumamoto*, col. 9, lines 25-28).

Tanner teaches a crosstalk filter with modulation delay that includes a delay in a feedforward path. (*Tanner*, Figure 4A, col. 4, lines 35-41). The delay blocks (420 and 421) impose a delay on the crosstalk compensation signals to compensate for the time it takes for an undesired crosstalk signal to reach the ear of the listener. (*Tanner*, Figure 4A, col. 4, lines 35-41). *Tanner* inverts and delays a feedforward signal, coming from the input signal, to cancel it from an input signal. (*Tanner*,

Figure 4A, col. 4, lines 35-41).

In *Ex Parte Rinkevich et al.* (BPAI 2007-1317, non-precedential), the BPAI applies KSR to reason that a skilled person would not look to a second patent to solve a problem already solved by a first patent (and by the patentee). The BPAI wrote that in “the instant case, we conclude that a person of ordinary skill in the art having common sense at the time of the invention would not have reasonably looked to Wu to solve a problem already solved by Savill. Therefore, we agree with Appellants that the Examiner has impermissibly used the instant claims as a guide or roadmap in formulating the rejection.”

In this application, the Office Action has impermissibly used the instant claims as a guide or roadmap for forming the rejection. *Tanner* delays and inverts an input signal to cancel unwanted crosstalk. *Kumamoto* already generates a crosstalk cancellation signal. A person of ordinary skill in the art having common sense at the time of the invention would not have reasonably looked to *Tanner* solve a problem already solved by *Kumamoto*.

Furthermore, addition of the delay and inversion, as taught by *Tanner*, would change the principle of operation of *Kumamoto*. Delaying and inverting the generated crosstalk cancellation signal would cause the generated crosstalk cancellation signal to not cancel the crosstalk. The proposed modification cannot change the principle of operation of a reference. (*MPEP* §2143). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Claims 38 and 40 recite features analogous to those recited in Claim 33. Therefore, Claims 38 and 40 are allowable for the same or similar reasons as Claim 33. Accordingly, the Applicants respectfully request that the § 103 rejection with respect to Claims 33, 38 and 40, and their dependent claims, be withdrawn.

CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.


If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees (including any extension of time fees) connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: Nov. 1, 2010



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